

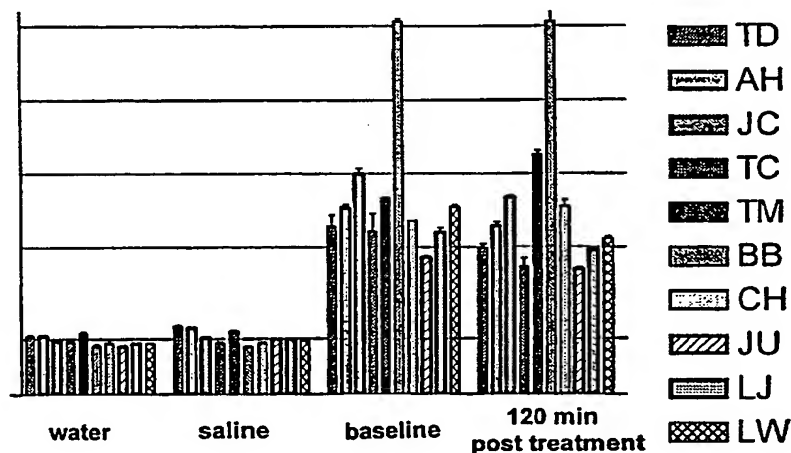
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(54) Title: **VISCOSITY MODULATING SUBSTANCE AND USE THEREOF****BASELINE AND 120 MINUTES POST-TREATMENT VISCOSITY MEASUREMENTS**

(57) Abstract: It has now been found that N-L-alpha-aspartyl-L-phenylalanine 1-methyl ester (APM) lowers whole blood viscosity in patients, including those suffering from sickle cell disease and plasma cell dyscrasias. Upon in vivo APM treatment, patients experienced a significant lowering of whole blood viscosity. In vitro addition of APM to patients samples having elevated whole blood viscosity resulted in reduced viscosity over time. These in vitro and in vivo results identify APM as a therapeutic agent for molecular diseases which lead to elevated whole blood viscosity. A method by which APM treatment can be monitored is also disclosed.

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